

WINDING SUPPORT FOR USE WITH A SUPERCONDUCTING ROTOR AND METHOD FOR FORMING THE SAME

ABSTRACT OF THE DISCLOSURE

A winding support structure for use with a superconducting rotor support structure and method for forming the same comprises a binding ring and a lamination coupled to the binding ring and having a slot formed therein for receiving the winding. At least one tie is arranged around a portion of the lamination and a portion of the binding ring to enable the winding to be held within the slot. The lamination includes a first tooth and a second tooth integral with the lamination for defining the slot therebetween. A felt ring or a tire is arranged around an outer circumference of the binding ring. Alternatively, the winding support structure comprises a binding ring, first and second non-magnetic boards coupled to the binding ring and a lamination coupled to the boards. A slot is defined between the boards and between the binding ring and the lamination to receive the winding. Any clearance space in the slot is filled with an RTV or an epoxy.